

Title (en)

FABRICATE SURFACES ON CONTACT LENSES

Title (de)

BEHANDELTE OBERFLÄCHE AUF KONTAKTLINSE

Title (fr)

SURFACES MODIFIEES DE LENTILLES DE CONTACT

Publication

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Application

EP 00955593 A 20000816

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- US 39902299 A 19990920

Abstract (en)

[origin: US6086204A] Methods and devices are described that are needed to design and fabricate modified surfaces on contact lenses or on corneal tissue that correct the eye's optical aberrations beyond defocus and astigmatism. The invention provides the means for: 1) measuring the eye's optical aberrations either with or without a contact lens in place on the cornea, 2) performing a mathematical analysis on the eye's optical aberrations in order to design a modified surface shape for the original contact lens or cornea that will correct the optical aberrations, 3) fabricating the aberration-correcting surface on a contact lens by diamond point turning, three dimensional contour cutting, laser ablation, thermal molding, photolithography, thin film deposition, or surface chemistry alteration, and 4) fabricating the aberration-correcting surface on a cornea by laser ablation.

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